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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,766	03/22/2004	Mark Bergman	BERGO.008A	1254

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EXAMINER
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RUNNING, RACHEL A

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/805,766	Applicant(s) BERGMAN ET AL.	
	Examiner Rachel A. Running	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the stop mechanism beign disposed in the supply path between the floss supply and the advancement mechanism, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 3-8, 17, 28, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Bergman (US 5,495,863). Bergman discloses a hand-held flossing device comprising a housing having a handle portion (6) and a head portion (8) the housing supporting a floss supply (14) comprising floss, a floss path (18), a floss advancement mechanism (44), and a stop mechanism (24) see Figure 3. A series of ratchet receiver members internally formed with the housing. The floss supply path is defined within the housing between the floss supply and floss exit formed in the head portion, a floss return path (34) defined within the housing between a floss entrance and the advancement mechanism see Figure 3. The advancement mechanism-ratcheting member comprises a rotatable member having an axle (40), the rotatable member is disposed in the handle forwardly of the floss supply and the floss supply path extends past the rotatable member see Figure 3. The stop mechanism comprises a friction lock (column 3, lines 36-38).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergman (US 5,495,863) in view of Ochs et al (US 6,080,481).

Bergman discloses a hand-held flossing device comprising a housing having a handle portion (6) and a head portion (8) the housing supporting a floss supply (14) comprising floss, a floss path (18), a floss advancement mechanism (44), and a stop mechanism (24) see Figure 3. A series of ratchet receiver members internally formed with the housing. The floss supply path is defined within the housing between the floss supply and floss exit formed in the head portion, a floss return path (34) defined within the housing between a floss entrance and the advancement mechanism see Figure 3. The advancement mechanism-ratcheting member comprises a rotatable member having an axle (40), the rotatable member is disposed in the handle forwardly of the floss supply and the floss supply path extends past the rotatable member see Figure 3. Bergman does not disclose the floss having a first surface coating comprising a water soluble material and a second surface coating comprising a generally non-water soluble material wherein the second coating encapsulates the first and the first coating is a multi-wax and the second coating is beeswax. Ochs et al teach a dental floss comprising a first coating made from water-soluble multi-wax and a second coating made from beeswax (column 4, lines 60-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the floss of Bergman from a generally non-water soluble material wherein the second coating encapsulates

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the first and the first coating is a multi-wax and the second coating is beeswax as taught by Ochs et al in order to have a coating that prevents fraying and shredding.

6. Claims 9-11 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergman (US 5,495,863). Bergman discloses the claimed invention except for the friction lock and advancement member being configured to apply between about 0-15 pounds of tension to the floss between the stop mechanism and the advancement mechanism, and the head of the flossing device being bent up to about 45 degrees. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the friction lock and advancement member be configured to apply between about 0-15 pounds of tension to the floss between the stop mechanism and the advancement mechanism, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the head of the flossing device be bent up to about 45 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

7. Claims 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergman (US 6,874,509). Bergman discloses a hand-held flossing device comprising a

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housing (4) with a handle portion (6), a head portion (8), wherein the head portion has an elongate back, a distal tine (86) extending downwardly and distally at an angle see Figure 12 (column 4, lines 55-65). A floss (30g) disposed in the housing and movable therethrough along a path, a portion of the floss exiting the housing through one of the distal (34) and proximal tines (86) and reentering the housing through the other of the distal and proximal tines see Figure 12. A tensioning member (124) configured to selectively impart a tension on the floss (column 7, lines 17-25). An inner wall portion that directly supports the floss at the exit and entrance see Figure 12. A floss take-up mechanism (40) configured to selectively advance floss from the floss supply and through the path, and a stop mechanism configured to selectively grip at least a portion of the floss see Figure 12. Bergman does not disclose the distal tine extending downwardly and distally at an angle of about 78-81 degrees, the head being configured to deflect toward each other about 5-15% when the floss is subjected to a tension of about 8 pounds, the take-up mechanism and stop mechanism is configured to impart at least 4 pounds of tension to the floss, the floss having a yield strength greater than about 20 pounds, and the maximum tension limit is less than about 15 pounds. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the distal tine extend downwardly and distally at an angle of about 78-81 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the head be

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configured to deflect toward each other about 5-15% when the floss is subjected to a tension of about 8 pounds, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. It would have been obvious to one having ordinary skill in the art at the time the invention was made to to have the take-up mechanism and stop mechanism be configured to impart at least 4 pounds of tension to the floss, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a floss yield strength greater than about 20 pounds, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the maximum tension limit be less than about 15 pounds, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233

8. Claims 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergman (US 6,874,509) in view of Medal (US 5,861,072). Bergman discloses that the housing of the flosser is fixed together by sonic welding, however, Bergman does not

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disclose that the first segment comprises a pair of adjacent energy directors. Medal teaches that energy directors are a common practice used in sonic welding to melt when energy is applied to the segments so as to weld ribs together (column 2, lines 10-20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the housing fixed together by a pair of adjacent energy directors configured to engage the inner wall portion of the second segment as taught by Medal in order to melt when energy is applied to the segments to weld the ribs together upon the application of energy.

### ***Conclusion***


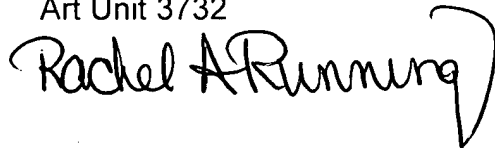
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel A. Running whose telephone number is (571) 272-1917. The examiner can normally be reached on Monday-Friday 7:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rachel A. Running  
Examiner  
Art Unit 3732



CRIS L. RODRIGUEZ  
PRIMARY EXAMINER